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OUT OF TOWN.

Don't tell me that the days of steam bring places closer together than they were. I doubt it; I disbelieve it utterly. In the old coaching-days—I knew them well—a journey of a hundred miles into the country took the edge off the sensation of change which a Londoner feels at walking in the meadows, or sitting out on the lawn, after a long period in town. The streets melted into the roads, the suburbs into the country, as you drove pleasantly along. The coachman stopped at wayside inns, remarked on the change of farmers, the progress of the hay or the corn. By the time you had got to your journey's end, you were familiar with the stage of the seasons and the gossip of the country-side. Now, the train whisks you at once into your friend's garden. No rural sensations enter the window of your carriage. If you do get out, you encounter buttoned-up officials, and see metropolitan advertisements. The guard of the train, and Heal's Family Bedstead, to be had in Tottenham Court Road, form no preparative for the country. When you deliver up the ticket, and leave the station, you appreciate, in a way no coach ever would have enabled you to do, the distance you have travelled. Your friend's house is incalculably remote from your own. Steam has not brought them together; they are set apart as unconnected places. You leave the world of London, and enter that of green things with a sense of contrast which, to me, does not wear out. Every time, I find the change from town to country more striking than I did before. If you let me ramble on about my doings down here, though they hardly deserve so active a name, I may possibly kindle the sense of faded garden-memories in some tired town-brain, or give some country idler a hint of much enjoyable but unnoticed life which goes on round his home.

Yesterday at four o'clock I left the city. To-night, I am sitting in my friend's kitchen, where I may smoke, and thus jot down the journal of a day. After breakfast, I carried one of the hall-chairs into the greenhouse, and settled myself down with a pipe and a book. I was surrounded with bloom. Great humble-bees wandered in through the open door, and after rummaging among the flowers, tried with failures and wrath to fly out through the glass. Insects, green as the leaves on which they lived, pitched upon my page. An inquisitive spider let himself cautiously

down to my level by a single line, up which a puff of smoke sent him back, hand-over-hand, far more surprised than satisfied. Birds hopped past the entrance, sometimes pausing for a steady side-look, and then, with a sudden duck of the head, as if they had made up their minds about me, flipping off.

Presently the gardener routed me out. Why are these men so fond of pursuing and interrupting visitors? On this occasion, 'he would not disturb me in the least, but he wanted to water the plants.' There is no privacy in a garden with a gardener. Give me a nook where I shall see no labelled flowers, and where no man at work shall rebuke my repose by his restlessness.

From the greenhouse I went on the lawn, and lay down under a tree. What a world of life is discovered on a nearer inspection of the grass! If the meanest insect feels a pang as keenly as a giant, I can conceive no spot on the face of the whole earth more full of pain and misery than a well-kept lawn which is rolled, mown, and swept daily. There is no cessation in the torture; every blade of grass which is kept down represents continual death, dismemberment, and mutilation. I can't sing in tune with those kind people who extol the beneficence of Nature. Beneath her smile, countless thousands are wriggling in pain; they are maimed, eaten alive, drowned, starved. Nature lives by change—that is, by death. When she seems still and gloomy, as in winter, she is in reality less prodigal of life. It is in summer, through the bright blue days when her face is gay, that most perish in the struggle for existence, and perish with remonstrance too. Did you ever see a bird eat a worm? Have you not noticed the twistings, frantic tumbling, and knottings up of the captive? Have you seen an ox put its foot in an ant's nest? Have you seen a thrush, by the hour together, stripping caterpillars off the vegetables? Conceive the squeeze of that hard bill, and if you fancy that the caterpillars don't mind it, just lay hold of one with a pair of tweezers. It is all right, I know, and caterpillars have no business to eat our salads; but still, don't make too much of the contrast between gloomy, grumbling man, torn by his passions, full of envy, ambition, and guilt, and the happy twittering world through which he frowns. It is my belief that man has much the best of it, and that even a bad man, who ought to be ashamed of himself, has more enjoyment than the merriest brute, be it big or small.

While I was lying on the lawn looking close at the commotion among its inhabitants which the grass-cutting machine had made in its passage, I heard a 'tinning' begin. Bees, thought I, looking round. Yes, there was a swarm settling on one of the boughs of the lime-tree under which I was, and on the other side of the wall, my friend's man-servant, who, with apron on, had rushed out from his pantry, and catching up a bill-hook and a fire-shovel, was hammering away, as a sedative to the bees. Scientific bee-fanciers say that this din tends to irritate and drive away the swarm, but still the custom holds its ground. In this case, the swarm gradually shrunk down from a buzzing cloud into a living lump of bees walking over one another's backs, and congratulating one another on having the queen safe beneath their feet in the middle of this solid mob. It hung on a branch about five feet above the ridge-tiles of an outhouse. 'An awkward place,' the gardener remarked, 'to stand on, for cutting them down.'

What a curious thing that bees will not sting some persons. I know a man who will shake a swarm into a cloth, and then stir the bees about like seed, and pick out their queen; deprived of her, they return to the hive from whence they came out. Let another man but approach them, and they would fly at him angrily. But about the bees on the lime-tree. No one would meddle with them in the absence of the coachman, who had gone to the station; so I volunteered, and was just putting a cloth over my head, and buttoning on my gloves, when Jehu made his appearance, in his shirt-sleeves, bare-necked, and with only a little cap above his ears.

Bees must be very tolerant. It is said they hate noise and dirt. You must be quiet when they swarm, and put them into a clean hive. In our case, the footman made the air hideous with his bill-hook and shovel. The coachman fetched a hive and small table; then he mixed a yellow basin of beer and sugar, and taking a succession of mouthfuls, squirted it all over the inside of the hive, till there seemed hardly an inch on which a delicate bee would care to step; then setting a ladder against the tiles, he went up whistling, in a pointed way. Whee-u-ugh—whe-whe-whe-whe-whe-whe-whe, and quietly cut the branch on which the swarm hung to the same stable accompaniment. Then carrying it down, like a great bunch of grapes, still whistling, he shook it into the beery hive, which he set upon the table, and covered with a white cloth and some leaves. There was, however, a mystery throughout the whole process. The people in this part of the world are very superstitious about bees. My interest and assistance in this case was received coldly. I am afraid now that I did some unlucky thing. The performance on the shovel was perfectly sincere; so was the nasty squirting into the hive; so was the whistling, and yet I fully believe, on good authority, that they were all far more likely to hinder than to assist the work. It was, though, and will continue to be, done in spite of them. Indeed, I suspect that most of our manipulation, I don't mean only in connection with bees, is mere pedantry. People don't like to see an important thing done simply. 'Wash, and be clean,' is generally offensive advice. Is that all? say the million. We love mystery. Don't, pray, don't give us simple methods and naked truth. Well, severe Mr Reformer, and would you really have us affect the naked truth?—would you insist on cutting down our belongings and appliances to the skeleton of necessity? Is there to be no regard for appearance? Must everything be obviously useful? Has not ornament a tinge of the divine? Is not ceremony natural? Why should the rose propagate its kind, or ripen its seed, through the stages of the bud, the blossom, and the full-blown flower? Why spend colours and sweet perfume in the process? Think of the display through which a chestnut has passed before the pig crunches it at the foot of the tree! Let us weave our

harmless web of mystery, ceremonial, or ornament, about the common things of life, and not always think ourselves bound to strip our work quite bare, when we see Nature loving to adorn and complicate hers.

When the bees were hived, I went back to the greenhouse. At the entrance is an underground tank, with smooth hard sides and a trap-door, which uncovers about one quarter of it, and permits the gardener to dip for water. It was then being replenished. I peeped in, and met what I may call a chorus of appealing looks. A number of frogs had jumped in, but could not get out. In exploring the garden, they had come to this tank, and seeing water, hopped in. When one had done so, another had less hesitation; but at last, when Mr Froggy had taken his bath, he found to his dismay there was no way out. You may be a good swimmer, but it is no joke to swim for a month. Some of the frogs were very tired; they had swum round and round the tank to find everywhere the same smooth, upright wall. Sometimes, by getting in a corner, and thus touching two sides, a fresh corner, less weary than the rest, could support himself for a few moments; but he soon slipped down, specially as, the instant he succeeded in getting a little purchase, a companion would climb upon his neck, and weigh him down. When, therefore, I stooped down and peeped in, I was met by an appealing look from the whole party, who swam together under the opening, and begged to be let out. Some pawed at the slippery wall, some let their legs drop, as if worn out, and simply held their chins above water in ungraceful but pathetic attitudes. One had found a little raft of four rooks' feathers placed cross-wise, on which he squatted. All were fearless from fatigue. Every now and then, the expectant little crowd beneath the trap-door was dispersed by the emptying of a pail of water, for the tank was being replenished, and a boy went incessantly during the whole morning, with a hoop and two pails, to a neighbouring pump for the supply; but as soon as the disturbance made by the pouring in of each pailful was over, the frogs were there again, buoyant but piteous.

Having found a board a foot and half long, and six inches wide, I let it down into the tank by four strings, so that I might haul it up steadily in case the frogs really meant what they looked. As soon as my raft touched the water, several of the most tired swimmers made at it, and clambered up slowly, like lame old gentlemen getting back into a bathing-machine. Once on board, they neither hopped nor stirred, but remained squatting at the edge, grateful though distressed. When I pulled up my raft, they sat quite still. Thus I drew six-and-thirty out of the pit. I thought of the Book of the Revelation and the mutiny of the *Bounty*. When I set the raft down on the grass-plat, after a moment's hesitation, as if to feel quite sure the thing had grounded, away they all jumped, and in a short time there was not a frog to be seen. I believe that frogs are far from useless in a garden; at least, I secured the immediate safety of these thirty-six by assuming to the gardener that they were his friends rather than enemies.

One or two frogs remained in the tank. I suppose they had just jumped in, and had not found out the drawbacks of the place. Confident fools! they came up to look at me, and then dived as soon as I let down the raft. Nothing would induce them to mount it. They could swim, thank you, and away they struck off into the obscure places of the tank. In a month, they will repent. Then I shall have long ago returned to town, the weather will be wet, the tank-door unopened, and the thin, weary frogs feeling round the hard, slippery, upright edge for some support, some change of gait, in vain.

Finding the late brig offenders inaccessible to my material offers and remonstrance, I shut the tank-lid

down, and went to feed the pigs. I like feeding pigs; I like being appreciated. There were seven pigs, quite new to me, in the yard. I found some Swedes in the barn, and cutting one of them into strips, sat down on the threshold, and held them out. I am not forbidding; they were eaten out of my hand, after a careful, cunning approach. The pigs were, of course, querulous and greedy, but civil enough to me. They appeared all of the same size and age, were all black, and exactly alike. I found, however, at once varieties of temper and confidence in the distribution of the first Swede. Now, thought I, I'll be bound some one pig is sole master here, has some mental ascendancy over the rest. Wishing to try this, I threw a whole Swede among the party. The nearest whipped it up, and jogged off; most of the others yielded; but one, no bigger than his fellows, walked after the fortunate possessor, bit his hind-leg, and made him drop the turnip, which he then himself picked up and ate publicly, without haste or hindrance.

The rain has begun to fall; I hear it on the roof of the veranda. The tank will not be opened again for weeks. The soft summer rain is coming steadily down, and the air—for I have laid down my pen to put my head out at the door—is loaded with the scent of earth and blossom. The clock has struck eleven. I must be off to bed, but I shall leave my window open. Good-night!

THE ELECTRIC LIGHT.

THE snapping, sharp, decisive electric spark gives out an intense light, as almost every one knows; and it is now, in these lecture-days, pretty generally known also that a flash of lightning is itself an electric spark on a gigantic scale. There is a current of something—people call it electricity, in the absence of any better name—rushing from one point in space to another; and if it meets with any obstacle to its free movement, this something heats the obstacle so suddenly and so intensely as to make it white hot, and therefore incandescent. Provided we do not tax it too closely, this brief explanation will suffice for the present purpose.

Now, multitudes of ingenious men have been trying for years and years past to make the electric spark sufficiently steady for the purposes of ordinary illumination. The difficulties in doing this are very great. Each spark endures for an almost inconceivably minute space of time; inasmuch that a *continuous* light could result only from a succession of these sparks following each other at imperceptibly small intervals. Every contrivance that could be devised, until quite a recent period, failed in producing steadiness in this succession; the light was always flickering, irritating, and unsuitable for practical use. Many brains have been taxed fruitlessly in this search. About seventeen years ago, two inventors, Messrs Greener and Staite, patented an electric light with which they intended to startle the world. They devised a mode of enclosing small lumps of pure carbon in air-tight vessels, and rendering them incandescent or luminous by currents of galvanic electricity. After many months of experiment, this new light was actually exhibited outside the National Gallery, the north tower of Hungerford Suspension Bridge (now doomed), the Duke of York's Column, and the Polytechnic Institution, in 1847; and there was quite enough to astonish the Londoners in the occasional flashes of intense light given forth. To produce this result, two small pointed pieces of carbon were so placed that their points should be at a small distance apart; and as this distance slightly increased by the slow combustion of the carbon, so were the points brought again to their former distance by means of wheel-work. The two pieces of carbon lay directly in the path of a galvanic current, transmitted from one copper-wire to another;

and in the act of leaping over the small space from the one bit of carbon to the other, the current heated both of them intensely, and made them give forth a dazzling white light. But these ingenious inventors, notwithstanding all their praiseworthy endeavours, could not obtain a steady light; it *would* flicker and intermit, and failed to become practically useful, although they fondly hoped—as they declared—that streets and buildings might thus be lighted at one-sixth of the cost of gas.

Then came MM. Achereau and Foucault's display of electric lighting at Paris, in 1848; and M. Le Molt's patented mode of arranging the carbon-points; and other patented improvements by Mr Gillespie, Mr Pearce, Mr King, and others. Mr Grove, in a lecture at the Royal Institution in 1849, stated that so far back as 1843, he had illuminated the lecture-room at the London Institution with the electric light; but Dr Faraday, and all the scientific men about that time (1849), acknowledged the fitful nature of the light, and its unsuitableness for general purposes, whatever might be the case with special uses. In the following year, Mr Allman tried to devise a mode by which the distance between the carbon-points should vary, according to the intensity of the electric current, so that the one quantity, compensating the other, might produce an equality in the light; but this required apparatus too delicately adjusted for such works. Next came Mr Paine's electric water-light—a project which drove the American newspapers almost wild with delight, and absorbed a great many notes of admiration in the printing. The inventor was credited with much more than the introduction of a substitute for candles and gas. A Boston newspaper asserted not only 'that he had extorted from nature the secret of the artificial production of light at a nominal cost, but that he has got hold of the key which unlocks, and enables him to command, a new force of nature, which is soon to supersede most of the forces now employed—something which is destined to work a revolution both in science and art.' Experience has not realised this brilliant anticipation. Mr Paine's apparatus consisted of a glass jar containing spirits of turpentine, another glass jar containing water, two strips of copper, a small tube which terminated in a jet or burner, and an electro-galvanic machine. When the machine was worked, water was decomposed, bubbles of gas escaped from the jar, these bubbles passed through spirits of turpentine, and a brilliant light was produced by ignition. A battle of the chemists ensued. Mr Paine asserted that the customary theory about oxygen, hydrogen, and water, is incorrect; and that the truth, as he had developed it, would supply us with a source of light far cheaper than any before known. These views were stoutly combated by those who held to the more usual opinions. Mr Paine's plan, whatever may have been his theoretical views, did not come successfully into practice. About the same time, M. Nollet obtained an English patent for another plan, in which water was to play a great part. Water was to be decomposed by galvanism; the liberated hydrogen was to take up a dose of carbon from another agent; the carburetted hydrogen thus produced was to yield a brilliant light, and at the same time such an amount of heat as would constitute an economic substitute for coal in boiler-furnaces. This, like Mr Paine's plan, failed to come into effective use.

It will thus be seen that many modes have been attempted for giving the electric light a kind and degree of steadiness suitable for practical purposes; and if we follow the history of the subject within the last few years, we shall find other indications of analogous character. In two instances, at least, the electric light has been made available for engineering operations. In one of these cases, the light was employed at the works of the new West-

minster Bridge (now finished). When the foundations were being laid in 1858, much of the work could be done only at low-water, and it thence became desirable to continue the operations by night as well as by day, when the tide suited. To effect this, an electric light, equal in intensity to seventy-two argand jets, was produced on shore by means of an electro-galvanic apparatus. The light was about two hundred feet distant from a stage or platform on which a number of men were employed in pile-driving, and was augmented by the use of a pair of Chappins' reflectors. The light was rather flickering, but was sufficient for the purpose, being likened by the men to that of the full-moon. In another instance, in France, the electric light was employed to give light to the workmen employed at night in excavating the stupendous docks at Cherbourg, which have excited so much attention. Two sets of apparatus were used, each maintained by one of Bunsen's large batteries of fifty pair of plates. The light was of intensity enough for the requirements of eight hundred men.

In 1862, MM. Dumas and Benoit suggested the employment of the electric light for mining purposes. A galvanic battery, a Ruhmkorff's coil, and a Geissler's tube—three forms of apparatus well known to electricians, but rather too complicated to be described here—are used. The light produced by those agencies does not heat the tube that contains it; it is isolated and distinct, so that no gas in the mine can gain access to it; it is as compact as an ordinary mining-lamp; it will work twelve hours, with only an occasional movement of the carbon with a rod; and the miner can easily carry it about with him in a small carpet-bag. About the same time, M. Serrin succeeded in making the electric light burn under water, thereby placing at the disposal of the hydraulic engineer a source of light likely to be very valuable in various constructive works relating to piers, sea-walls, sunken rocks, sunken wrecks; and to the shipwrights, an aid in examining the bottoms of ships needing repair.

In another direction, inventors have sought for modes of illuminating buildings, and open public places. Mr Gassiot, in 1860, communicated to the Royal Society the rationale of a beautiful contrivance for throwing a brilliant light into a room. A glass carbonic-acid tube, one-sixteenth of an inch in diameter, is coiled round into a kind of flat spiral; the two ends, considerably widened, are bent downwards nearly side by side, and enclosed in a small wooden box; platinum slips, connected with a Ruhmkorff's coil, enter these two widened ends; and when a current is generated, the whole spiral becomes brilliantly illuminated.

Concerning the lighting of the fronts of buildings, Dr Phipson, in his recent work on *Phosphorescence*, has brought forward a curious speculation. He states that when houses are freshly whitewashed—that is, coated with lime-wash—and when the sun has been shining brightly on them during the day, a faint phosphorescent light is visible on them at night; and he suggests that, by employing sulphide of calcium or sulphide of barium, the phosphorescence might possibly be strong enough to serve as a substitute for artificial light. However, this is a matter connected with the theory of phosphorescence, rather than with that of the electric light.

In the summer of 1861, the electric light was employed to illuminate the Cour du Carrousel and the Cour du Palais Royal at Paris. On these occasions, magneto-electric machines were used instead of electro-galvanic machines. In one of the experiments, the machines, placed in one of the lower rooms of the Tuileries, were worked by a four-horse-power steam-engine. When the horse-shoe magnets had attained a revolution of sixty turns per minute, communication was opened with two copper-wires, each three hundred metres in

length, and a light was produced equal in intensity to that of a hundred-and-fifty carcel lamps. In the other experiment, the whole of the court of the Palais Royal, and the two entrances of the Rue St Honoré, were lighted up almost as with the light of a full-moon. The distance asunder of the carbon-points was, in these instances, maintained by an ingenious apparatus invented by M. Serrin, and called by him the 'Automatic Regulator.' In this apparatus, which the inventor described at the Oxford Meeting of the British Association in 1860, the two carbon-points are placed one above another, and a wheel and a pendulum are so combined as to keep the carbon-points always at a uniform distance, notwithstanding the gradual burning away of the substance. At a soirée at the Polytechnic Institution some time ago, M. Serrin's apparatus was employed under very pleasing and attractive circumstances; for the brilliant electric light, transmitted through ground glass globes, and through Messrs Defries's glass prisms, became at once beautiful in tint and bearable in intensity. In one of the experiments at Paris, M. Dubosq displayed an electric light in a great hall where a thousand persons were assembled at a literary soirée; the light was strong enough to read ordinary type at a distance of a hundred feet from the apparatus. Other experiments of analogous character have been made in Paris and in London.

It is not to be wondered at that the problem concerning the applicability of the electric light to *light-house* purposes should have engaged much attention on the part of scientific and practical men, seeing that the light required must necessarily be very intense, in order to penetrate to a great distance, and to overcome to some extent even the resisting medium of fog or mist. Burning coal, tar, and other rough substances, were superseded by lamps and candles of various kinds; and then were devised numerous arrangements of focalising apparatus, to concentrate the rays chiefly in one direction, by reflection from bright concave metallic surfaces, or by refraction through glass lenses. The lime-light or Drummond light, produced by the action of oxyhydrogen on lime, has also been occasionally employed, but not to any great extent, owing to difficulties connected with the management of the gas. There have been also obstructions of a sufficiently discouraging kind in the attempts to apply the electric light as a substitute for these earlier contrivances. Nevertheless, the difficulties are gradually disappearing. In January of the present year, Captain Bolton telegraphed during a hazy night from Portsmouth to Bembridge, in the Isle of Wight, a distance of thirteen miles; he used the lime-light, with a modification of Morse's telegraphic alphabet. The success was such as to shew that, with the electric light instead of the lime-light, this method might be peculiarly valuable in time of war.

As concerns regular light-house illumination, however, we must go back to the year 1857, when the Trinity House, as the official authority in these matters, caused experiments to be made on the subject. They were conducted first by Dr Faraday and Professor Holmes; then the latter was desired to frame a practical system; and finally, this system had the benefit of Dr Faraday's approval and suggestions. The chief feature in these labours was the substitution of the magneto-electric machine for the galvanic; that is, the production of a current and a spark by magnetic instead of galvanic action. At the end of December 1858, matters were so far advanced as to permit of an electric light being tried at the South Foreland light-house, in Kent; but as the apparatus was imperfect in some particulars, and the results unsatisfactory, the lighting was suspended for a while, to admit of further improvements. In March 1859, the apparatus was again set up; and Dr Faraday made a report to the Trinity House in reference to it. The important part of this report was, an expression of the learned

philosopher's opinion that Professor Holmes had practically established the fitness and sufficiency of the magneto-electric light for light-house purposes, so far as its nature and management are concerned. The light produced was powerful beyond any other that he had seen so applied; its regularity in the lantern was great; and its management was easy. Early in 1860, Dr Faraday again visited the light-house, and found that the electric light was doing its duty bravely, *so long as it shone*. There was, however, one circumstance that caused anxiety to the light-keeper: the light now and then had a tendency to go out, either owing to the breaking off of the end of the bits of carbon, or to some disarrangement of the fine mechanical work of the lamp. It is true that the slightest touch by the light-keeper brought the carbon-points into the proper position again; but it was certainly a serious matter, for it required the keeper to be constantly on the watch, instead of regarding the apparatus as automatic or self-regulating.

Nevertheless, in a paper read by Dr Faraday before the Royal Institution, on the 9th March 1860, he spoke in warm praise of Professor Holmes's apparatus. The power was produced by several magnets set into rapid revolution, inducing an electric current in helical coils of copper-wire; and this current was made to produce light at and between two carbon-points. 'There are two magneto-electric machines at the South Foreland,' said Dr Faraday, 'each being put in motion by a two-horse-power steam-engine; and excepting wear and tear, the whole consumption of material to produce the light is that which is required to raise steam for the engines, and carbon-points in the lantern.' This is certainly a wonderful example of what now a days is called the correlation or convertibility of forces: 'a lucifer-match kindles paper and wood; these kindle coke or coal; the heat thence produced makes water boil; the boiling water becomes converted into steam; the pressure of this steam moves a piston; the piston moves a fly-wheel; the rotating fly-wheel causes a series of magnets to rotate; this magnet-rotation induces an electric current through a copper-wire; this current intensely heats two bits of carbon at their point of separation; and the heated carbon gives forth an intensely brilliant light—and so we mount upwards from the lucifer-match to the electric light, by an unbroken chain of causes and effects.' Dr Faraday went on to state: 'The lamp is a delicate arrangement of machinery, holding the two carbons between which the electric light exists, and regulating their adjustment; so that whilst they gradually consume away, the place of the light shall not be altered. The electric wires end in the two bars of a small railway, and upon these the lamp stands. When the carbons of a lamp are nearly gone, that lamp is lifted off, and another instantly pushed into its place. The machines and lamp have done their duty during the past six months in a real and practical manner. The light has never gone out through any deficiency or cause in the engine or machine-house; and when it has become extinguished in the lantern, a single touch of the keeper's hand has set it shining as bright as ever. The light shone up and down the Channel, and across into France, with a power far surpassing that of any other fixed light within sight, or anywhere existent. The experiment has been a good one.'

Dr Faraday felt himself justified in recommending to the Trinity House, in 1860, a further trial of this excellent invention. They acceded to his views, and after a time established an electric light at the Dungeness light-house. The electric apparatus was nearly the same, but the optical accessories were more complete than at the South Foreland, so as to focalise the rays in a more practically useful manner. By a judicious arrangement, the old oil-lamp and reflectors were retained without disturbance, that they might

be used again if the electric light went wrong, or both might be used together in very foggy weather. Some careful experiments shewed, however, that so overwhelming is the intensity of the electric light, compared with any form of oil-lamp, that the latter scarcely adds anything to the brilliancy of the light produced by the former; this is especially the case at very long distances, shewing the penetrating nature of the electric light. During 1860, 1861, and 1862, Dr Faraday made multiplied experiments and observations on the Dungeness light. He gradually arrived at these conclusions in favour of the oil-light system, as compared with the electric: that it is more simple to manage; that it requires only two keepers alternately in a light-house, whereas the electric system requires men who understand the management and repair of steam-engines, as well as lamps and their watchful adjustment; that the failure of the light is less probable, on account of the greater simplicity of the apparatus; and lastly, that the expense of the oil-system is less than that of the electric system. On the other hand, the all-powerful intensity of the light is, in Dr Faraday's opinion, far more than an equivalent for the advantages on the other side.

In conclusion, there seems every justification for expecting that the still remaining difficulties will one by one be conquered, and that we shall see the electric light adopted extensively for light-house purposes. A light that renders England and France visible to each other in the middle of the night, and that—as is asserted—enables print to be read at a distance of little less than ten miles, is surely a light that will triumph over all petty obstacles. The fitful results of the electric light at the recent public illumination on the 10th of March, were no proof to the contrary; they only shewed that incomplete arrangements naturally produce incomplete action.

THE DANISH DRESSMAKER.

Those downhill years of the eighteenth century which came midway between the close of the Seven Years' War and the outbreak of the French Revolution, were years of quiet prosperity to the greater part of Germany. But quietly prosperous years, like men in similar circumstances, are apt to be uninteresting, and so it was with the period in question. It has left historians little to prose on or dispute about; it gave the courts little to intrigue for, the diplomatists nothing to protocol and shuffle over, except the partition of Poland, which was done quietly enough for such a bad business. It was the still growing-time of that fearful harvest which the last of the generation were to see reaped in overturned thrones and bloody battle-fields, before they went down to their graves; but nobody dreamed of what was ripening or brewing far under the feet of the powdered and periwigged, hooped and brocaded society which learned all its magnificence from the court of Versailles, and all its wit from the philosophers of Paris.

The times were quiet if not good, and particularly so in the kingdom and court of Prussia, where Frederick the Great was resting from his labours in Sans-Souci, keeping many old friends and no guards about him, and shewing himself to Berlin only on the few high festivals his majesty chose to patronise. Frederick's old friends were getting fewer as years went on, and one gray head after another disappeared from banquet-board and grand review. His friendship and quarrel with Voltaire were long over, for the sage of Ferney slept among the monks of Sellices. The royal poems had been published, and well received, of course. The royal lute had been laid by for want of wind to play it; for time tells in that vulgar manner on kings as well as other mortals. He had asked the philosophers more questions than they

could answer, and got tired of that and ploughing; amusements were growing scarce, so were news and gossip; and thus it happened that the Great Frederick became curious concerning a small but inexplicable matter which for some time occupied and puzzled all the rank and fashion of Berlin.

Strange to say, the subject was nothing more distinguished than a dressmaker—not a *modiste de Paris*, nor even a court-milliner from Vienna, but a certain Madame Haroldson from Copenhagen, whose work was notoriously bad, and whose charges were known to be exorbitant, yet who contrived to carry on a brisk and profitable business through the interest taken in her and her affairs by the noble family of Richendorff. Their House was reckoned among the richest of the Prussian nobility; it was also known to be one of the proudest. Good-nature, or mildness of temper, had never been counted among the family characteristics. They were almost the only subjects with whom the old king, Frederick William, of absolute and exacting memory, did not care to meddle; no tall peasant had been crimped off their estates for his giant regiments; none of them had been obliged to build a house on the marshy banks of the Spree, or buy wild-boars from his majesty after his great and profitable hunts. Yet they had stood well in royal favour under the old and new régimes; and some twenty years before the period of our story, the Baron von Richendorff, then representative and head man of his House, had the honour of escorting the Princess Louisa Ulrica, Frederick the Great's sister, to Copenhagen, and seeing her crowned queen-consort of Denmark. Louisa Ulrica was a royal belle in her day, and clever enough to hold her own in any court in Europe. She did it with considerable energy and success in the Danish palaces, being endowed with her father's sturdy temper, and her mother's talent for falling sick on all trying occasions. She had her father's strong stiff likings, too, and the Richendorff family had the good-fortune to get hold of them. The baron remained in Denmark, master of the queen's private household; his baroness was mistress of the robes, his two daughters her favourite maids of honour, and his only son her majesty's chief equerry. So they lived and flourished, got places and pensions, envy, hatred, and adulation from all the Danish court, and worship and solicitations from all German comers for ten years and more. The daughters got splendidly married to Prussian noblemen, whom Queen Louisa sent for to Berlin, no Danes being good enough for her maids of honour. The son was permitted to marry a Danish heiress of uncommon wealth and quarters, and the House of Richendorff seemed likely to overshadow all the north with its grandeur, when suddenly there came a mighty break-up in Queen Louisa's household. The best informed of the backstairs people could not say how it happened, but the baron gave up his mastership, the baroness resigned the robes, the two ladies of honour retired from the position their weddings had not affected, the chief-equerry laid down his honours and emoluments, and the Richendorffs, with all their following and most of their gatherings, returned to their town-house in Berlin, and their castle in East Prussia.

The high and mighty family came back without a stain on their escutcheon; on the contrary, with added titles and honours, with additions to their more substantial possessions too, and everybody agreed they could take care of both, at home or abroad; none had ever accused them of over-liberality or condescension. Why they had left Denmark was accounted for by the Prussian's love of his native country, the wish of young and old to enjoy their riches, and close their days in the focus of civilisation presided over by the Great Frederick. That explanation had satisfied the king, and was expected to satisfy the public; at anyrate, they got no other, and court-affairs were not

to be inquired after in those times. But in the land they left there was a whisper—confined, of course, to the highest circles and their hangers-on—regarding a young Swedish countess, of Scotch descent, for her father was Count von Sinclair. He had come as ambassador-extraordinary, to settle one of those ever-recurring disputes about boundaries, which have kept the northern kingdoms from falling fast asleep since the Reformation-time, their last waking up. His daughter had accompanied him, to see the Danish court and its German fashions, perhaps to get well married, for the family, though noble, were not rich. Her education had been finished in Paris; her beauty was acknowledged even by the ladies; and the young Countess von Sinclair took particularly the fancy of Queen Louisa Ulrica, got into extraordinary favour, and, whether on that account or on her own merits, was believed to be specially admired by her majesty's chief-equerry. Such was the state of matters when the court removed bag and baggage from Copenhagen to the old palace of Ringstadt, where it pleased Queen Louisa to hold high festival that Christmas-time. Her royal consort did not always concur in her arrangements, indeed was not always consulted; but on this occasion harmony prevailed between the pair. King, queen, and all who were counted anybody in Denmark, all the foreigners of distinction, all the *corps diplomatique*, swarmed in and about the old palace, till there was not an attic room or a neighbouring cot unoccupied by some noble guest; and the only spare space was said to be the central court, darkened by the old walls and towers that rose round it, and containing nothing but a deep draw-well, long unused, because out of the way; the modern additions and improvements of the palace having left no access to the court but one steep narrow stair, on which a small door opened at the end of the great gallery; and also because the water was so impregnated with iron from some deep-lying mine, that all linen washed in it was injured beyond remedy; and the court physicians found out it would produce old looks and wrinkles even in royal faces.

Well, the palace was filled, and the festivities went on, with a great acting of plays, a lengthy doing of dances, and a mighty consumption of all the good things of the north. There was nobody that played, danced, or flirted like the Countess von Sinclair; there was nobody that followed and flattered the young beauty like the queen's chief-equerry. Some people thought the Danish heiress saw more than she was expected to do, and was taking her measures; some people thought the ambassador-extraordinary would have preferred a more eligible admirer for his daughter. There was not exactly scandal, but a good deal of remark among the elder ladies and other guardians of propriety, when all at once the court was astonished and the festivities interrupted by the sudden and unaccountable disappearance of the young countess on the last day of the year, new style. She had danced at a grand ball the preceding evening, looking as gay, as beautiful, and as elegantly dressed as usual; the equerry had been as attentive; the heiress had seemed no more observant; the censors had not found any additional cause of disapprobation; but in the morning her French maid reported that mademoiselle was not in her chamber, had not slept in her bed, had not put off her ball-dress or jewels, and was nowhere to be found. The entire palace and the surrounding country were searched, but no further intelligence was ever obtained of the missing countess. Her father offered rewards; Queen Louisa fell sick, and broke up the festival; the chief-equerry galloped about, inquiring after her in every direction; the young Danish nobles vied with each other in following his example; but no servant within, no peasant without, the palace, no traveller on the highways, could give the slightest account of her. The countess

had been seen or heard of by nobody from the hour in which she finished the last minuet at the ball, just before the company broke up. It was not with the equerry, but the Russian ambassador, Count Crimannoff, she had danced; he had conducted her to a *tabouret* near the queen, crossed the room to speak to his own countess, and saw the young lady no more.

There the tale ended, except that sundry surmises, not of the best-natured kind, were indulged in by the court ladies. That the Countess von Sinclair had eloped with somebody not at all to her father's mind, and would turn up some day, was their general expectation. But up she did not turn. Queen Louisa declared her determination never to recover from the shock. As she knew not who to blame, her majesty made great efforts to fix the charge of her favourite's disappearance, first on the French maid, and then on the Russian ambassador; but in both cases, it was impossible, the alibi was so clear. No one thought of including the Richendorffs; they were entirely out of the scrape; had not been near the young lady; had no imaginable motive for getting her out of the way; were known to be the most active and indefatigable in the search; and when it was fairly over, remained in their places about Queen Louisa for more than a twelvemonth, when a natural and laudable desire to return to native Prussia made them all at once resign, to the great displeasure of the queen, and the delight of the whole court. It was thought that Louisa Ulrica would have taken satisfaction by endeavouring to prejudice her brother against the deserters; but his sisters were not always successful in such endeavours with the Great Frederick; moreover, there was a family quarrel then in hand, concerning certain diamond pins and buckles belonging to the late queen-mother; so the Richendorffs were welcomed back, as patriotic and prosperous people might expect to be. Had they not given up distinguished positions and brilliant prospects in a foreign country for the love of Fatherland and the paternal rule of its enlightened monarch? The old baron was invested with the order of the Black Eagle; the young baron was made a colonel of hussars; the baronesses, senior and junior, were included in Princess Amelia's receptions; all the Richendorffs resumed their places in German high-life, opened the balls in Berlin, led the boar-hunts in East Prussia, entertained select company, and were struggled for by the trades-people.

There was one among that numerous order who got her patronage apparently without strife or endeavour, and that was Madame Haroldson. She had arrived from Copenhagen exactly one month after the Richendorffs, took a German assistant, advertised for apprentices, and opened a dressmaking establishment in Charlotte Strass, the allotted habitat of milliners, hairdressers, and all who dealt in finery at the time. Copenhagen was not the quarter to which Berlin looked for its new fashions, and as Madame's show-room displayed no special attraction, the chances seemed considerably against her; but scarcely had her advertising card been left at the town-house of the Richendorffs, when they hastened to patronise her, and gave nobody in their extensive circle rest or peace till they did the same. Their kindness to the Danish dressmaker was alike beyond praise and precedent. Dependents were commanded, friends requested, and acquaintances coaxed, to get their dresses made at her establishment; and between commands, requests, and coaxing, Madame soon got a very respectable business. All Berlin naturally inquired after the cause of such unbounded interest. It was not owing to Madame's superior skill; the ladies knew that her cut was clumsy, and her stitches apt to give way; that costly silks and laces were extensively cabbaged, and gimps and fringes ill matched. It was certainly not owing to Madame Haroldson's personal attractions. She was a tall, spare woman, who might have been handsome in her youth; but

that was some time ago, and the face had grown, as female faces are apt to grow in the course of northern winters, hard and heavy. She had a low, husky voice, and a quietly determined manner, which the strongest minded of her fair customers failed to move, or make more complaisant. She spoke German badly, and with a Danish accent, and gave people to understand, in a general indefinite way, that her sojourn on German ground was to be reckoned among the misfortunes of her life. Finding no account of the matter there, the Berliners began to inquire into her history, but with an equally small result. All that could be gathered was, that she had been a work-woman in the establishment of Madame Fleury, the only Parisian modiste Copenhagen could boast; had been for many years a widow, with an only son, who worked for a fashionable tailor till consumption carried him off, some six months before the Richendorffs left Denmark, when, to the surprise of everybody, Madame Haroldson commenced dressmaking on her own account, was employed by the flourishing family, and subsequently followed them to Berlin. In its despair of solving the problem, the fashionable world of Prussia at length hit on the conjecture, that Madame Haroldson must have been related to the Richendorffs either by blood or marriage. She was a Dane; they had been long in Denmark, and a noble House could not acknowledge a mere dressmaker in any other manner than the one they adopted.

On that conjecture the fashionable world rested for some years. Madame went on making dresses of clumsy cut and bad stitching, grumbled against by her small customers, scolded at by her great ones, but, nevertheless, getting well employed and better paid, through the exertions of her noble patrons. They were increasing in number, if not in influence. The old baron and baroness were deep in the vale of years, and rarely seen out of their private apartments; but their grandchildren had grown up on all sides, and as the daughters of their illustrious House were three to one of the sons, Madame's business bade fair to flourish in proportion. But revolutions came even to dressmakers, and it unluckily happened about this time that a remarkable one took place. The long, peaked, tight corset gave way to the short loose sac and pinner, the many-coloured hood and head-tower made room for the beaver-hat and cap of Flanders lace. It was one of those sudden and complete changes of fashion which ladies rejoice in, and husbands sincerely deplore. All the *ton* of Berlin sallied forth to secure the new weapons of war against mankind; every shop, every warehouse, every magazine, was besieged; green tea rose in consequence of the demand for it to keep work-girls up to the mark of stitching night and day, and chief milliners were believed to be making their fortunes. But alas for Madame Haroldson! she could not, or at least she did not get the new cut; never having mastered the old one, she stuck fast to her limited acquaintance with it, now that all was changed, and her sacs and pinners were pronounced unwearable by everybody above tailors' wives. Her noble patrons exerted themselves as formerly, but in vain; ladies would not have their new fashion spoiled. Moreover, all Berlin had got tired of them; and even the younger daughters of the House of Richendorff were known to be in open rebellion against the Danish dressmaker. Once more society inquired what was the secret of her rule and reign over that family? why did all the high-born baronesses above twenty get their sacs and pinners ruined in her establishment, when they might get them well made in half-a-dozen houses with patterns fresh from Paris? The subject having slept so long, had all the charm of novelty; ladies discussed it in private, together with the new fashions, and how ill they became their acquaintances. Ladies' maids whispered about it in all their meeting-places; sewing-girls kept themselves awake in all the work-

rooms with it, excepting in Madame's own, from which, however, a curious circumstance at length transpired to increase the general wonder. A forewoman, long in Madame Haroldson's service, happened to quarrel with and get dismissed by her mistress and she lost no time in making known to the public that Madame's influence over the Richendorffs consisted of nothing less than magic, for when the ladies of the family proved unmanageable, or found too many faults, she had seen the Danish dressmaker pull out a piece of shining stuff from a little box always carried about her, flourish it in their faces, and say something in Danish, which nobody else could understand; and the forewoman solemnly declared that simple process always brought the ladies to their senses.

All Berlin agreed with her that it must be magic. In spite of the philosophers and the enlightenment, witchcraft was coming again from its old quarters in the north. Madame Haroldson got a renewal of custom from timid families who stood in dread of her occult powers; confidential maids gave their mistresses advice concerning her; above all things, it was not safe to get a *trousseau* without part of her work in it, and the dressmaker having found out her own importance, began to take on airs, when the tale came to the ears of King Frederick. Curious and inquisitive from his youth, the friend and enemy of Voltaire was given to consider and sift gossip. There were grains of golden information to be got out of that flying chaff; they had served him often in camp and court, by throwing light on his neighbours' proceedings, or directing his own countermine; and now, in his old, unoccupied days, it occurred to his Prussian majesty that the story of Madame Haroldson and the Richendorffs, shining stuff and all, might be worth investigating, and he went to work with accustomed silence and celerity.

The Danish dressmaker was thrown into a state of great excitement and expectation, one evening at the approach of Christmas-time, by a message from the royal *schloss*, where she was to attend immediately, and receive the commands of Princess Amelia. The health of the poor princess had not admitted of her illustrating the fashions largely for years; but what of that? a sac or pinner sent home to the *schloss* would raise Madame above all her enemies; and she hastened to wait on the one sister of the Great Frederick who had remained in single blessedness. In the ante-room of the *schloss*, however, Madame found an officer with a serious face and a warrant to arrest her. She was directly conducted to a carriage, driven with all speed to Küstrin, escorted down stairs and through passages to a large empty room with grated windows, where two elderly ladies—one in the dress of an ordinary beguine, the other in that of a canoness, and both with stern, grave faces—locked the door, and informed Madame they were commanded to search her person. They did so, and found the famous little box, secured, they say, in a concealed pocket set in her seventh petticoat. It contained nothing but a small ragged piece of Parisian stuff, in fashion some twenty years before, and called *soie d'argent*, from the silvery threads mingled with the silk of which it was composed. The canoness directly commenced a strict examination as to why she kept that piece of stuff about her, and how it had come into her possession; and the dressmaker's airs and importance being all departed by this time, she threw herself on her knees, solemnly declaring that the stuff was kept for no magical purpose, nor had been obtained in any wicked way, but once formed part of the hanging sleeve which she, as a workwoman in the establishment of Madame Fleury, had helped to make for the ball-dress of the young Countess von Sinclair, the last she ever wore, and disappeared in at the old palace of Ringstadt. It had been torn off, as the reverend and high-born canoness would perceive, and her son had found it in the pocket of the young Baron Richen-

dorff's dress-coat, which he got to put new buttons on while working for the fashionable tailor in Copenhagen. He had dutifully brought it home to his mother; the search for the countess was over by that time; and after her dear boy's death, she thought it no harm to help a poor lone widow's living by letting the noble family know it was in her fingers, and keeping it well out of theirs. That was all Madame Haroldson could tell. The canoness took possession of the stuff, and informed her she should come to no harm if her tale proved true, but must remain in Küstrin, without seeing anybody but her jailer, for some time.

On the following day, the young baron of Richendorff, as he was still called, received an early summons to attend also at the *schloss*; the Princess Amelia had business with him too; and as he went up the grand staircase wondering what it could be, a couple of officers arrested him, conducted him to a carriage waiting at the back-entrance, drove him off to Küstrin, and lodged him in the very apartment Frederick himself had occupied when his father thought proper to send him there for contemplated desertion, and poor Katt was executed in the court outside. In that chamber of memories the young baron passed the night without fire or candle, and in the morning was waited on by the chaplain of the fortress, a gray-headed, iron-faced old man, far more of a soldier than a parson, whose code of morals and religion was to obey orders and pray for the king. He solemnly interrogated him on Madame Haroldson's piece of torn stuff, how it came off the sleeve of the lost countess, and got into his dress-coat pocket; and the baron, having no other alternative, at once confessed the secret of the dressmaker's power over him and his family. He said that his attentions to the young countess had been more serious and more reciprocated than any one about the Danish court imagined. He had fallen in love with the young lady, and she with him; and he, married man as he was, had often urged her to elope with him to Germany, but could never get her to consent. On the night of the ball at Ringstadt, he had become jealous of the Russian ambassador, watched for and beckoned her out at the end of the last dance, to talk in the great gallery. They were both heated, and hoping to be more out of sight and hearing, opened the little door, and went on the stair leading to the deserted court-yard. There he pressed his suit, till the countess, half angry and half playful, attempted to flee from him down the stair. He caught her by the sleeve, but part of the slight stuff gave way in his grasp, and missing her footing at the same moment, she was precipitated down the steep stone stair, and into the deep draw-well which lay immediately below. He heard the ice upon it crashing as she fell, and hurried down: a great hole in the ice was there, and a heaving of the waters below, but no sight or sound of the lady. The well was more than a hundred feet deep; he knew she could not be saved, and if he gave the alarm, he might have been suspected of her murder. There was therefore nothing for it but to save himself, which even lovers can do in such cases, by keeping a strict silence, and joining in the search. But in his haste, the torn piece of stuff had been thrust into the baron's pocket, had been forgotten, and found there by Madame Haroldson's son; and the fear which kept the baron from giving the alarm, had enabled her to use it with his family to some purpose for more than twenty years.

Whether he told the whole truth or not, could never be ascertained; but a private communication which the Prussian ambassador made to Queen Louisa Ulrica, led to the examination of the deep draw-well. At its bottom there was found the skeleton of a woman, still wearing a gold necklace and bracelets, with a cipher of Von Sinclair upon them. It was laid quietly in a vault under Ringstadt Church, and nothing more said about it. King Frederick and his sister thought it unnecessary to publish the misfortune

of a noble family, when no actual crime could be proved. The baron was liberated soon after, with a command to occupy himself in future with the management of his paternal estates in East Prussia, which, it is needless to say, he obeyed to the letter. Madam Harolds was also released, with an order to quit Berlin, and go anywhere she pleased except to Copenhagen. It is said her final settlement was in Hamburg, where she gave up dressmaking, and devoted her leisure time and hoarded gatherings to the purchase of lottery-tickets, every one of which turned out blanks. Tradition also asserts that the ladies of the Richendorff family signalled their freedom from her thrall by getting new sacs direct from Paris, and were ever after famous for wearing the first French fashions. Some of them who lived to be grandmothers, and see more French fashions in Berlin than were wanted after the battle of Jena, were heard, when close upon their last toilets, to bless the memory of King Frederick for having delivered them from the Danish Dressmaker.

STREET-SONGS.

A WELL-KNOWN author of our own time once laid upon himself the task of investigating the literature of the Masses. He bought a specimen of all the penny periodicals, whose name was legion even then, and which now have become as the leaves of Vallambrosa, except that many of them do not exist so long as from spring to autumn, and he read each number (or averred he did) right through from beginning to end. A still more conscientious man would have perused the continuous story that pervades each of them—buying up the back numbers, and bespeaking those to come for that especial purpose—but our author was himself a writer of serial stories, and he knew better than that; besides, he could guess pretty well what had happened, and what might be expected to happen, to hero and ruffian, to betrayer and betrayed, so that he fairly held himself excused. He read, in all, about four-and-twenty of these wonderful little magazines, and he came to the conclusion, that they were written in a manner which he could never hope to emulate. He was really anxious to do so, for the circulation of some of them was immense—far greater than that of the respectable journal with which he was himself connected. The man who wrote the continuous stories, although not a person of literary eminence, was an object of envy to our author, tolerably popular though he was: the latter might count his readers by tens of thousands, but the former could count them by hundreds of thousands. He had got the masses by the ear, and he knew how to hold on to it. A curious proof of this occurred a little while afterwards, when one of the most popular of these periodicals fell into the hands of a too enterprising publisher, who started in its pages one of the novels of Sir Walter Scott. Its readers had certainly never read Scott, but they evinced no desire whatever to make his acquaintance. The circulation fell with ruinous rapidity; in four months, Sir Walter had choked off ninety thousand subscribers; and the enterprising publisher had to recall Fitzball—the idol of his literary public—by whose magic wand the masses were presently beckoned back again.

Our author of course detested Fitzball, and would have given the world to expose him; but, as a matter of fact, there was nothing to expose. He hoped to find him immoral, or at least improper, but such was not the case; the writings of Fitzball are harmless as water-arrow-root. He looked for incidents of startling interest, but with the exception of the usual occurrences—the saving of the heroine from drowning, and her release from the ordinary bull—there was nothing to excite a thrill in the most impulsive. He looked for the exemplary punishments of the Bad Men, and lo! they generally

died repentant, and dispensing blessings in liberal profusion. He looked for broad and hilarious merriment, if not for wit; but he might just as well have looked for that in the *Post-office Directory*. There was not a scintillation of humour to be found in a single one of the four-and-twenty periodicals. The masses take their pleasure sadly, and look upon literature as a very serious subject indeed.

Upon the whole, our author retired from his severe labours, having achieved no practical result. His investigations led him nowhere, except to a consciousness of his own inability to rival the supreme Fitzball. He came to the conclusion, that the latter owed his success to the fact, that he was only a very, very little intellectually superior to his readers, and that he was without the slightest individuality of any kind. Thus, he never unduly elevated the Masses, never puzzled them, never shocked them; but always titillated them with the notion, that his own Works were the very works that they themselves would have written had literature happened to have been their calling. They had thought his thoughts, or something very like them, before; they had imagined his 'situations'; while his very localities were not unknown to them, for his descriptions were vague enough to allow themselves to be adapted to any scene.

Now, we ourselves have been devoted for a very considerable period to the study of Street-songs, and we find them to afford even a more mysterious subject for reflection than Mr Fitzball's prose. It is all very well to quote the dismally hackneyed sentiment of 'Give me the making of a People's ballads, and let who will make their laws;' but it is a thing easier said than done. There are an immense number of popular melodies now lying before us, of which, to use a popular expression, we can make neither head nor tail. They are very varied in subject, in metre, and in style, yet, albeit ourselves accustomed to poetic labours, we are totally at a loss to account for their composition. A very few of them, indeed, are ballads of literary merit with which we are all familiar; but, as a general rule, our great poets have failed as signally as our great novelists to find their way to the hearts of the Masses—that is to say, to that lowest substratum of society able to comprehend literature, or appreciate verse at all. The ballads before us have no author's name attached to any of them, and if they had, we should probably be none the wiser; yet these are the songs which are listened to by millions, and purchased, at a halfpenny each, with a wood-cut, by thousands. These wood-cuts not only add the charm of another art to that of song, but they introduce an element of imagination; they suggest, but they do not illustrate, since they invariably refer to something of a totally different character to the matter in hand. Thus, over the *Blue-eyed Maid* there is depicted a Three-decker in full sail; over the *Battle of Navarino* is a pastoral person milking a cow; and over the *Plague-ship at Sea*, there are a gentleman and lady going to church, with a cloud-borne cherub with his eye upon them, as in a valentine.

These songs, be it premised, have not been bought at a stall, or out of an umbrella, with any pecuniary abatement, in consequence of our taking a quantity; they have been collected by ourselves in city and village, in the street and on the race-course, at Berkshire sword-playings, and at Cumberland wrestling-matches, and not until we have heard them sung and applauded. The popularity of some of them is further assured by our possessing many duplicate copies, and it is these, in particular, which most excite our admiration—in the sense of wonder. The more popular a street-ballad is, the more unintelligible, as it seems to us, is its composition. Some of them, we regret to say, are improper, and unfit for quotation; some of them are pathetic; some are humorous; a few are

patriotic; a few didactic; and many are amatory; but the thing which seems most to secure the attention of the many-headed is Confusion—Poetic Chaos. It is not that matters are not clearly explained, and therefore may be suggestive; but they are left unfinished, as if type itself was wanting. One subject is suddenly deserted for another, not only without reason, but even without rhyme; the first line of a couplet being left all alone, with not even a comma, as it were, to tie up the poetic arteries. We are not speaking of the mere mistakes of the printer, which are tremendous indeed, but of the miscarriage of the language, which babbles in an idiotic and unconnected manner, like the Atlantic Telegraph before it became utterly speechless. For instance, let us take that very popular street-song, called *The Grand Conversation of Napoleon*, of which there are several versions, but all distinguished by this charming confusion. The title awakes some wonder, to begin with, since there are not even two persons mentioned in the song to hold a conversation at all, and far less a Grand one.

It was over that wild-beaten trac en h of bold Bonaparte,
Did pace the sands and lofty rocks of St Helena's shore
The wind it blew a hurricane the lightnings flash around
did dart

The sea-gulls were shrieking and the waves around did
roar;

Ah hush rude winds, the stranger cried, awhile I range
the dreary spot,

Where last a gallant hero his envied eyes did close,
But while his valued limbs do rot, his name will never be
forgot.

This grand conversation on Napoleon arose.

Ah England, he cried, why did you persecute that hero
bold,

Much better had you slain him on the plains of Waterloo;
Napoleon he was a friend to heroes all, both young and
old,

He caused the money for to fly wherever he did go;
When plains [!] were ranging night and day that bold
commander to betray,

He cried, I'll go to Moscow and then 'twill ease my woes.
If fortune shines without delay, then all the world shall
me obey.

This grand conversation on Napoleon arose

That thousands of men he then did raise, to conquer
Moscow by surprise,

He led his men across the Alps oppressed by frost and
snow

But being near the Russian land he then began to open
his eyes

For Moscow was a burning, and the men drove to and fro,
Napoleon dauntless viewed the flame and wept in anguish
for the same,

He cried retreat my gallant men for time so quickly goes
What thousands did on that retreat some forced their
horses for to eat,

This grand conversation on Napoleon arose.

There is a great deal more of it, but perhaps the above
will be sufficient. Why Napoleon should be so dear
to the writer, why his eyes should be 'envied,' and his
limbs 'valued'—although we have heard of 'precious
limbs'—we know not; this old and favourite street-
song, however, is perhaps a relic of the revolutionary
epoch, when our own lower classes sympathised with
the French. But observe how the poet interlards his
song with mere phrases—such as we have italicised;
not because they have the least affinity with his sub-
ject, but because they lie nearest to his hand.

When Blucher led the Russians [!] in, it nearly broke
Napoleon's heart

He cried my thirty thousand men are killed and I am
sold.

And again—

His son soon followed to the tomb; it was an awful plot;

a remark which, if directed against the allied mon-
archs, can scarcely be termed justifiable. In another
panegyric upon the mighty Corsican, the curious
expression,

He caused the money for to fly wherever he did go,
occurs once more. Is it possible that our street-song
writers can be subsidised, like the *Morning Chronicle*?
Else, how comes it that they are so Napoleonic in their
ideas? Under the singular title of 'the Green Linnet,'
the great emperor is most tenderly alluded to in *Maria
Louisa's Lament*.

The cold lofty Alps you freely went over

Which nature had placed in your way,
That Maringo, Saloney, around you did hover
And Paris did rejoice the next day.

It grieves me the hardships you did undergo
Over mountains you travelled all covered with snow
The balance of power your courage laid low,
Are you gone, will I never see you more?

When the trumpet of war the grand blast was sounding

You marched to the north with good will,
To relieve the poor slaves in their vile sack clothing
You used your exertion and skill

You spread out the wings of your envied train
While tyrants great Caesar's old nest set in flames
Their own subjects they caused to eat herbs on the plain
Are you gone, will I never see you more?

In great Waterloo, where numbers laid sprawling

In every field high and low
Fame on her trumpets thro' Frenchmen were calling
Fresh laurels to place on her brow.

Usurpers did tremble to hear the loud call,
The third old Babe's new buildings did fall
The Spaniards their fleet in the harbour did call
Are you gone, will I never see you more?

This is pretty well in the way of poetical enigma,
but the last verse is perfection, since the printer has
therein vied with the poet in producing utter unin-
telligibility.

'thro the deserts of Abyssinia,

t find no cure for my pain,

Will I go and enquire in the Isle of St Helens

No, we will whisper in vain,

Tell me yon critics, now tell me in it me

The nation I will range my green linnet to find

Was he slain at Waterloo, at Elba on the Rhine,

If he was I will ne—

That is the last verse, pure and simple. What can
the critics tell, thus being appealed to? They can
only affirm, from the peculiar use of the word 'will,'
that the talented author is an Irishman.

Surely, when so much study and acumen are devoted,
at the universities and elsewhere, to elucidate obscure
texts in an ancient poet, some attention might be paid
to the mysteries of popular English ballad! We have
listened for hours to the hypotheses of classical
lecturers upon the erasure and substitution of a Greek
letter, and have received with humility his advice as
to procuring the best German edition of a Greek play,
now let us, in return, recommend to those gentlemen,
or their successors, the investigation of *Maria Louisa's
Lament*, of which we possess no less than five
editions, and all, as it seems to us, intensely needing
revision.

It must not be supposed, however, that all street-
songs are thus unintelligible; this is only the case
when they are street-songs and nothing else: many
of them have an existence other than that of the
halfpenny broad-sheet, in books of songs—*Vocal
Warblers* or *Wreaths of Melody*—and these are, by
comparison, faultless. Having these famous text-
books to consult, in place of oral tradition, an editor
would have no excuse for any such errors. Thus, the

Ratcatcher's Daughter, a ballad, by the by, somewhat irrelevantly surmounted by a medieval design in black-letter, has come to our hands in all its native purity, a phrase which could not be used of many of its congeners which have enjoyed the same advantages. Comic street-songs are generally coarse and stupid, but the present specimen, although describing persons in a humble station of life, is correct and humorous. The author is careful to tell us that his heroine was not always a resident in the unaristocratic locality inhabited by her parent.

She was not born in Westminster
But on t'other side of the water,
And the gentlefolk they all bought sprats
Of the pretty Ratcatcher's daughter.

An affecting instance of the power of her beauty, as sprats are, for the most part, purchased by the poorer classes only. Neither rich nor poor could, however, have ignored either her or her profession.

If she cried sprats in Westminster
She'd such a loud sweet voice, sir,*
You might hear her all down Parliament Street
As far as Charing Cross, sir.

The rich and great came far and near
To marry her they all sought her

But there was a man cried 'lilly white sand'
In Cupid's net had caught her.

The two following verses are really humorous in a high degree:

Now lilly white sand so ran in her head
When coming along the Strand, sir,
She forgot she'd got sprats upon her head
And cried 'Buy my lilly white sand O,'
The folks amazed all thought her crazed
All along the Strand, O,
To hear a girl with sprats upon her head
Cry 'Buy my lilly white sand O.'

The ratcatcher's daughter ran so in his head
He didn't know what he was arter
Stead of crying 'Buy my lilly white sand'
He cried 'Do you want any ratcatcher's darter?'
The donkey cocked his ears and brayed
Folks wondered what he was arter
To hear a lilly white sandman cry
Do you want any ratcatcher's daughter.

Many of our readers have probably heard this affecting ballad, whether they would or not, as sung in Her Majesty's highways, and it is not necessary to harrow the feelings of the less fortunate who have not heard it by describing that catastrophe which caused the lover

To cut his throat with a piece of glass
And stab his donkey arter,
So that donkey and lilly white sandman died
Thro' the love of the ratcatcher's darter.

But there is both humour and pathos in the above verses, although as curiously distorted as in a nigger melody. In both these qualities the street-song is generally deficient. The courtships, too, are arranged with ludicrous haste, and the situations are not dramatic, but only 'stagey.'

THE RIVER ROE.

As I went out one evening all in the month of June
The primroses and daisies and violets were in bloom
I espied a lovely fair one, and her I did not know,
I took her for an angel that was bathing in the Roe.

Her sirname I'll not tell, lest you might her know
But her master's habitation is on the River Roe.

I said my pretty fair maid if with me you'll agree
We'll join our hands in wedlock, and wedded we will be.
My father he's a nobleman the country well does know
And his dwellings lies convenient to the River Roe.
She quickly made answer, and this to me did say
'My mistress, she is waiting, I have no time to stay
I'll meet you to-morrow and my mistress won't know.
We have had some conversation on the River Roe.'

This last most unexpected remark is surely by the author of

This grand conversation on Napoleon arose.

He can no more keep that piece of idiocy out of his compositions than Mr Dick could eliminate Charles I. from his Memorial, and it occurs here again and again; but it is only necessary to state that the marriage of the nobleman and the servant was solemnised with unusual rapidity:

We were married next evening as you shall shortly know;
She has servants to attend her, and she dwells upon the River Roe.

In the above excessively stupid composition, some features of the Old Ballad have evidently been preserved—the casual meeting, and the love at first sight of the nobleman with the maiden of low degree; but how strangely are they confused with modern 'servantalism,' and its *I have no time to stay*, and *My mistress won't know!*

The highwayman, who inspired so many street-songs of the last century, is now almost forgotten. In all our collection, there is but one melody in his honour, entitled *Brennan on the Moor*, and surmounted by a handsome cavalier in a Spanish cloak, to which are attached three enormous medals of exquisite workmanship. A curious mixture of Robin Hood and the Newgate Calendar is herein apparent:

But what he'd taken from the rich, like Turpin and Black Bess,
He always did divide it with the widows in distress.

Nobody, we suppose, would have been more astonished than Turpin (except Black Bess) at having such a system of benevolence imputed to him. Brennan having been 'basely betrayed' (like any unsuspecting female) by 'a false-hearted young man,' yet 'with the mounted cavalry a noble battle made':

He lost his foremost finger, which was shot off by a ball
So Brennan and his comrade they were taken after all.

His last farewell would be more affecting if it were less incorrectly printed:

Farewell unto my wise and to my children three
Likewise my aged father he may shed tears for me
And so my loving mother who tore her gery locks and cried,
Saying, 'With Willie Brennan in your cradle you had died.'

The last statement is entirely at variance with the rest of the ballad. Ancient songs such as these suffer most from errors and omissions, simply because the editor, who has probably no library to consult, is as much in the dark as his readers. The mere misprints have sometimes quite a fine black-letter air, as,

Knownin the wese betrayed.

In *The Widow that keeps the Lamb Inn*, on the other hand, the editor seems more than at home. This is a good song, and contains much tolerable wit in the unambitious form of puns. The second line

* 'Sir' is always inserted when either the rhyme or the metre seems to require it.

contains an admission truly modest, and unusual in a travelled person :

A traveller for many long years have I been
But I never went over to France ;
 Most cities and all market-towns [a beautiful touch]
 I've been in
 From Berwick on Tweed to Penzance,
 Many hotels and taverns I've been in my time
 And many fair landlady's seen—
 But of all the fair charmers who other outshine
 Give me the sweet widow,
 The dear little widow,
 I mean the sweet widow that keeps the Lamb Inn.
 Her lips are as roses [rosy ?] as e'en is her wine,
 And like all her liquors she's neat,
 She's full of good spirits that's really divine
 And while serving her bitters, looks sweet.

The experience of the poet in the matter of inns is extensive indeed.

There's a Bet at the 'Blossom' and Poll of the 'Crown'
 Fat Dolly who owns 'the Red Heart,'
 There's Kate of 'the Garter and Star' of renown,
 And Peggy who keeps 'the Skylark.'
 Spruce Fan of 'the Eagle' and Nan of 'the Bell'
 Pretty Jane of 'the Man drest in Green'
 But of all the fair creatures who others excel
 Give me the sweet widow who keeps the Lamb Inn.
 There's Nance at 'the Old Woman clothed in Gray'
 I look black upon her, I vow,
 And Letty who graces the 'Old Load of Hay'
 I don't care a straw for her now.

In strong but not agreeable contrast to street-songs of this sort are the religious ballads. These are principally addressed to the Irish population, and are, without exception Roman Catholic—nay, Ultramontane in their tone. In the *Lines on the Mission at Navan Town*, all Irish Catholics are prayed to lend an ear unto the glorious victory of this 'triumphant' year: speaking of some ecclesiastical pageant, the poet informs us,

Since Moses led the Israelites
 The like was never known.
 The procession it was splendid
 The truth I do declare,
 The clergy walked with incense grand
 The virgin's banner there ;
 Whilst the model of holy innocence
 The children all in white
 With the holy Dr Cantwell
 It was his hearts delight.

Nor is this ecclesiastic with the unfortunate name the only priest herein immortalised.

Both night and day one labours hard
 To guard and teach her flock—
 The Reverend Father Fortescue
 Stands on St Peter's Rock.
 One Faith, one Church, one Lord and God,
 There's certainly no more,
 You unbelieving Christians
 Now this great God adore ;
 To fly a deathbed repentance
 The eleventh hour, make haste
 And join our holy missionaries
 Against Antichrist—the Baste !

In the song on *Dr Cahill's Visit to England*, the author diffidently states, 'the praise of that great theologian I am quite unfit to lay down,' but that is the sole instance of modesty which these religious ballads afford. Their unblushing bigotry and insolent dictation would be truly humorous, did they not, alas ! but too faithfully represent the feelings of the class to which they are addressed.

The realistic class of street-song, that which simply describes everyday-life as it now is, seems to flourish

best in the manufacturing districts. In *The Handsome Factory Lass*, we find the heroine addressing a power quite novel in poetical adjurations :

Oh cruel Turnout, thou hast been severe.

In the *Contented Wife and her Satisfied Husband* there is a most admirable and common-sense statement of domestic expenditure ; the husband, who has One Pound One a week, finds his wife spends it all in household matters, and desires to know how the money goes.

'Well now,' says she, 'if you must know, you shall, with good intent.

Now first we pay half-a-crown every Monday morn for rent,

Three and sixpence for bread, and for butter sugar and tea

Two and twopence I lay out as you may plainly see.

There is tenpence every week for coals and sixpence wood and coke

Threepence needles pins and thread, and sixpence halfpenny soap,

Three and sixpence every week for meat, two shillings for potatoes and greens,

And then there's threepence halfpenny every week for milk and cream ;

and thus she goes into every item, until she is able to remark in conclusion :

'There's just a single penny left of your one pound one, So where does candles, matches, and such things come from.'

The refutation of extravagance could not be more complete in the mouth of Mr Gladstone himself. Social morality, good sense, and accuracy are combined in this poem, which indeed has no drawback, except that it has no poetry in it, and but very indifferent rhymes.

Our collection comprises some very excellent *Dreadful Murders*, but they are almost too shocking for quotation. The thing most insisted on in these, next to the interesting details of the deed itself, is exact Locality. Thus, in the elegy upon *Norah Scannell* :

In Albert Square, in High Street, Shadwell,
 With a foreigner she did reside—
 A man of blood, thought nought of murder
 The laws of England he defied
 Through jealousy this bloodthirsty murderer
 In cold blood, devoid of strife,
 With a weapon—the Spanish dagger—
 He took away poor Norah's life.

The poet dwells rather too fondly upon the incisions made by this formidable weapon, but he reserves his climax of sanguinary detail for the suicide of the murderer himself.

He had blown out his brains—the walls were covered !
 His teeth and jaws were scattered around,
 Part of his brains were on the ceiling,
 Part of his tongue was on the ground.

There are few, even of our Temperance readers, who have not heard snatches of the street-song *I like a Drop of Good Beer* ; but the great original, here present, contains sentiments which we ourselves have missed in its *vied-roce* delivery, and which may have escaped the observation of others ; which would be a pity. Rum, observes this enthusiast for malt liquor, causes the hair to fall off—will make the bald pates to appear.

I never goes out, but I carries about
 My little pint nuggin of beer ;
 For I likes a drop o good beer, I do,
 I likes a drop o good beer ;
 And darn his eyes whoever tries
 To rob a poor man of his beer.

The word 'darn' being obviously used in the sense of to close up, and having no connection whatever with the usual vulgar expletive of the lower classes.

My wife and I feel always dry
At market on Saturday night
Then a nuggin of beer I never need fear
For my wife always says it is right.

There is a tribute to woman's prudence and judgment; and here is another to her taste:

For *she* likes a drop o' good beer, *she* do,
&c., &c.

The whole concludes with a loyal enthusiasm, thus:

Long may Queen Victoria reign
And be to her subjects dear
And wherever she goes we'll wallop her foes
Only give us a skinkful of beer.

As we turn over the fading broad-sheets before us, there seem many more street-songs deserving of admission into these respectable columns; but space, or rather the want of it, forbids further extract. There is room for the gem of the collection, and that is all. It is entitled *Red-haired Man's Wife*, and possesses a blotched frontispiece, apparently intended for a landscape:

Ye muses nine combine and lend me your aid
To pen these few lines you shall find my heart is
betrayed
By a virgin fair whom I love as dear as my wife.
She has from me flown and become the Red-haired
Man's wife.

Observe the effect of passion in the lover, not only in his carelessness of punctuation, but in his use of the definite article 'the,' as though there was but one Red-haired Man in all the world, including Scotland.

A letter I sent by a friend down by the sea-shore
To let her understand I am the man that does her
adore,
If she would leave that slave I would forfeit my life
She'd live like a lady, I mean the Red-haired Man's
wife.

The injured swain determines to try the effect of Nature upon his love-sick mind:

I straight took my walk each day through a thick shady
grove;
Thro' pearly streams where warblers nimbly rove;

The lark and the linnet softly sent up their strains
The nymphs of Phœnicia swiftly skipped over the
plains.

He must, therefore, one would think, have gone abroad; but, at all events, he returns to England, and seeks by accident the very sea-side place—probably Margate—to which his faithless fair has fled:

I was conveyed where nature boasts of her pride,
I stood in amaze and gazed on the Red-haired Man's
bride.

He endeavours to persuade her to elope, by reminding her of her broken vows:

Don't you remember the time that I gave you my
heart,

You solemnly swore from me you never would part.

She allows that that is all very true, but that she is now the red-haired man's wife, and intends to remain so. Then he proposes a composition; namely, that she shall be both their wives, and instances as an authority for that peculiar arrangement the patriarch (whom he calls 'a patriot') David:

My darling fair Phenix, the same as if you were my
own,
The Patriot David had numbers of wives 'tis well
known.

The lady, however, at once perceives the illogical as well (we will hope) as the immoral character of this argument; and as a last resource, the tempter offers her a gift—perhaps his photograph. She not only shews herself totally disinclined, however, to figure before Sir Creswell Creswell, but she gives the young man a bit of judicious advice into the bargain:

Therefore, *take it easy*, as nature has caused this strife,
I was given away, and will remain the Red-haired
Man's wife.

Surely never before did Virtue and Philosophy combine more harmoniously in the same couplet.

THE HERRING QUESTION.

AN ancient naturalist speaks of a common opinion that whatever exists in any other department of animated nature finds its analogue in the sea. Modern nomenclature presents us with the extremes in this long chain of being in the angel-fish and the sea-devil; but between these there are numerous similarities to countenance the old dogma. No better likeness, for instance, of the pouter-pigeon could be found in the waters than the curious globe-fish, which has occasionally been taken on the Cornish coast; and to produce another finny analogue of a bird, which has also the advantage of matching an old popular belief with a modern popular error, we might compare the herring with the swallow. The latter migrates yearly to unknown torrid climes; and until quite recently, it was supposed that the herring also withdrew annually to the arctic regions.

We purpose to correct this erroneous view, by giving the true natural history of the herring, as suggested by Yarrell, strengthened since his death in an Essay read before the British Association, by E. T. Mitchell, Esq., in 1861, and established last year by Her Majesty's Commissioners for 'inquiring into the acts relative to trawling on the coasts of Scotland.'

To begin with the fish's birth. Fishermen who frequent the 'Fluke Hole,' a celebrated fishing-ground a mile off Pittenweem, on the coast of Fife, often find in autumn their nets and ropes covered with herring-spawn. This is hatched in three weeks, and becomes then *fry* or *sill*. In six or seven weeks more, these have attained three inches in length. Eleven or twelve inches is the average length of the full-grown fish; but it is most difficult to ascertain how long it takes to acquire maturity. Taking into account all that is certainly known of it, and remembering what legions of hungry enemies are perpetually preying on the herring, we shall not be far wrong in assigning from twelve to eighteen months as the requisite time. From fry, the herring pass into *maties*, as they are called, remarkable chiefly for their fat. In this state they feed voraciously on various crustacea, sand-eels, &c., and do not cure well. Their next change is into *full herrings*, the fish with which most people are familiar at the breakfast-table, their chief internal peculiarity being, that the fat of the *matie* has given place to roe or milt. It takes about three or four months for the *matie* to pass into the full herring. At first, only a few of the latter are caught, but soon they are found in prodigious numbers, when the season begins in earnest, massed together in tiers at such favourable spots as the Fluke Hole, or the banks of Ballantrae in Ayrshire, where the bottom is gravelly, and covering square miles of sea. After spawning, they are called *shotten*, and rapidly disappear. There is no positive evidence as to their ultimate fate; but the general belief is, that they

withdraw to deep water, and after staying there a longer or shorter time, reappear as maties, and run afresh through the same cycle of changes. The age to which a herring will live is unknown; but looking to the numbers of its hungry enemies, two or three of these annual campaigns must generally prove fatal to it. We say annual, because, though two of these campaigns take place every year round the British coasts, namely, in spring and autumn, it seems most probable that different bands of herrings are engaged in them; different armies, we might say, for the word herring is derived from the German *Heer*, an army, expressive of their vast numbers.

As for the fabulous stories of their migration to the arctic regions, which Pennant relates, and which is still the popular belief, there is no evidence whatever to support it. No herrings have ever been caught in the arctic seas, it being eminently a fish of the temperate seas; none have ever been found in the stomach of whales caught there; none have ever been observed going there or returning. A few can be taken round our own shores all through the year. In the Firth of Forth, one may be caught in any month. The shad, the pilchard, and other fish come and go by shoals on various parts of our coasts in a similar manner to the herring, and yet no arctic migration has ever been brought forward to account for their wanderings. The truth manifestly is, that all alike come into the shallows to deposit their ova at certain times, and then retire to deeper water.

The capricious habits of the herring have chiefly contributed to keep this fable alive. Far above other migratory fishes, it is prone to sudden and unaccountable fancies. From 1855 to 1862, herrings deserted the Ballantrae banks altogether. The Isle of Lewis was a well-known fishing locality, but from 1750 till about 1790, the herrings discontinued their visits. The same thing happened in 1797; and for the thirty-two following years, none approached the shores. Indeed, at the best of times, the continuance of a shoal in any part of the North-west Highlands for eight days together, is extremely precarious. The fishermen give all kinds of absurd reasons for such fanciful desertion of their usual stations. In the Western Isles of Scotland, burning kelp, firing off guns, and even plying of steam-boats, have been regarded as distasteful to the herring, and the cause of bad fishing-seasons. The true reasons are evidently variations in the quantity of food, and the kind and force of the destructive agencies at work upon the herring. What brings them periodically to certain localities is chiefly the increase of temperature and oxygen, so necessary to the continuance of their kind.

Let us pass to the chief modes of catching them. The legal method is by the drift-net. From six hundred to two thousand yards of netting, supported by floats and buoys, and attended by boats, are shot at night in the deep, and the fish caught are strangled in the meshes. This is an expensive plan, liable to frequent derangement by storms and steam-boats. The other system is by the trawl. This only became a system in 1846, and prevailed chiefly on the west coast. It consists of the common seine-net rowed out, and then dragged ashore in a semicircular form, enclosing the fish in a purse. The respective advocates of these plans had long been finding fault with each other's systems, and much ill-feeling had thereby been engendered among the Scotch fishing communities. Did a poor season occur amongst the trawlers? They forthwith complained of the drift-nets disturbing the spawn. Were the drift-nets disappointed of their season's average? They lodged complaints against the trawlers for killing the fry along with the older fish. These old grievances had been met by the legislature from time to time with different acts. The police, watchers, &c. necessary to preserve these in force, were now felt a heavy burden by the fishermen. Murmurs arose among the fishermen them-

selves as to the expediency of keeping up the very acts originally passed for their good. Some petitioned parliament in favour of the trawl-net, others against it. Therefore, last autumn, the Commission we have mentioned was appointed to inquire into the alleged grievances of the Fishery Acts, and to report, from a survey of the whole question, what line had better be adopted for the future.

We must briefly mention these acts, to enable their proceedings to be better understood. Since 1809, the meshes of drift-nets have been compelled to measure not less than an inch from knot to knot, or have thirty-six squares in the yard. In 1851, the trawl was declared illegal, and the drift-net recognised as the only legal mode of capturing herring. Increased powers were given to put a more effectual stop to trawling, in 1860. The act of that year also introduced a 'close-time' for all the west coasts of Scotland, while the east coast was left free as before. From January 1st to May 31st, no herrings may be caught on the west coast up to Point Ardnamurchan; and none from that point to Cape Wrath, between January 1st and May 20th. Another appeal to legislation was rendered necessary in 1861, from the fact of the sprat-fishery in the Firth of Forth, which can only be carried on by trawling, being destroyed by the exclusion of the trawl, and a large body of fishermen who had been accustomed to depend upon it for their subsistence being thereby reduced to destitution. A new act was therefore passed to relieve them, by legalising the capture of sprats in certain localities.

By personally surveying the west coast, and weighing much evidence, the Commissioners found that trawling did not injure the fishery. Remembering the dates of the above-mentioned acts, this table is a specimen of its proof.

ABSTRACT OF RETURN OF THE WHOLE FISHERY OF THE WEST COAST OF SCOTLAND.

Periods of Five Years.	Approximative Gross Take.	
	In Five Years.	Annual Average.
1845 to 1849, . .	516,102	103,220
1850 to 1854, . .	542,758	108,551
1855 to 1859, . .	595,403	119,080

We may add a few particulars of interest for one locality, to shew the scale on which the fishery is here carried on. In Loch Fyne alone, there were, on an average of seven years, from 1855 to 1861, 518 boats of all sizes employed almost exclusively in taking herrings. Their value is upwards of six thousand pounds, and that of the nets they carry about ten thousand pounds. Nearly fifteen hundred fishermen are employed in manning this fleet.

It was found that the close-time gave great dissatisfaction in every way. In winter, the Skye people depend much upon the cod, ling, and other fish which they can take, and its effect has been to deprive them of herring-bait, the best adapted for catching these fish. Their harvest was a failure in 1861, and though much mortality prevailed amongst them, and great scarcity of food, with the herrings actually on their coast, the law forbade their capture. Yet four policemen sent from Argyre were sufficient to secure the maintenance of close-time, in a population of twenty thousand. What the feelings of the Skye people are against such a law may well be imagined.

No advocate for close-time is to be found on the east coast, with the exception of the Wick curers. The fishermen oppose its introduction, and the returns shew that they are right. Wick, we may remark, is the metropolis of curing in Scotland, as Yarmouth is in England. From far and wide, the country girls flock into the town, to assist in it during the season, when the shore, as may be expected, is somewhat unsavoury. We need not describe the process of curing, as it is to be seen so close to home

as Yarmouth, where even in Anglo-Saxon times, according to Yarell, the herring-fishery was carried on, and a tax of ten thousand fish was paid annually in the reign of Henry I.

On the general question of close-time, the Commissioners think the whole of the west coast, from the Mull of Cantire to Cape Wrath, should be made as free as the east coast is at present. The main objection to close-time is, that fishermen are everywhere prevented by it from taking herrings to serve as bait for 'white fish'; so that these latter, all of them the direst foes of herring, increase enormously, to say nothing of the profit lost to the fishermen thereby. A single herring cuts up into bait for three of these fish, each of which, it is calculated, if left in the sea, would have devoured annually between four and five hundred herrings. This is evidently the point on which herring legislation turns. If the number of herrings available for human consumption can be increased by enactments, let acts be made accordingly; if, on the contrary, legislation only multiplies their natural enemies at the expense of man, it is hurtful. As a matter of fact, it is found to do so. Consider the enemies of the herring. Among fish are the cod, ling, coal-fish, hake, conger, and dog-fish, while the 'king of the herrings,' a monster like a rabbit mounted on wings, constantly harasses them round our northern coasts. Gulls and gannets are also their sworn foes. How small a part in this destructive work does man play! His 'influence upon herrings,' says the Report, in the face of all this (not taking into account the swarms of flat-fish of all kinds that prey upon the spawn), 'whether conservative or destructive, is absolutely inappreciable.' It is calculated, from the fishing returns, that the quantity of cod and ling alone caught on the Scotch coasts during 1861, would have devoured more herring than 48,000 fishermen could have taken. As, during that year, only 42,751 fishermen and boys were employed on the Scotch fisheries, the magnitude of their destructive powers may readily be perceived. Indeed, our fishery operations do not effect five per cent. of the total annual destruction of the herring. Wisely, then, do the Commissioners present the following conclusion to parliament: 'Under such circumstances, the herring-fishery should not be trammelled with repressive acts, calculated only to protect class interests, and to disturb, in an unknown, and possibly injurious manner, the balance existing between the conservative and destructive agencies at work upon the herring. If legislation could regulate the appetites of cod, conger, and porpoise, it might be useful to pass laws regarding them; but to prevent fishermen from catching their poor one or two per cent. of herring in any way they please, when the other 98 per cent., subject to destructive agencies, are poached in all sorts of unrecognised piscine methods, seems a wasteful employment of the force of law.'

Indeed, when it is considered what a splendid nursery for hardy seamen is the herring-fishery, anything tending to have a repressive effect must be an evil to the country. Repressive laws which, from the nature of the case cannot be perfectly upheld, are demoralising to the steady fishing-communities of the north. They stand on a different footing from the Game Laws, which, while securing to game immunity from man's attacks, have a secondary operation in destroying their natural enemies. High duties on spirits led to illicit distilling and smuggling; when the duties were lowered, the contraband trade received its death-blow. It would seem, then, the soundest, as well as the most patriotic policy to allow our thrifty northern fishermen to pursue their dangerous vocation in perfect freedom. Let them be quite at liberty to exercise their wits in taking as many herrings as they can, and when they can.

In conclusion, we may observe that the whole question of legislation for herring round our shores, in

itself, in the manner in which it affects British commerce, and in its foreign relations, is one well worthy the attention of all who have the country's welfare at heart; and the less British fishermen are restricted in their operations, the more successful will they be in coping with the Norwegian supply. This is yearly rising in importance; for instance, in 1853, the Norway fisheries only shipped 12 barrels of herrings to Great Britain; but in 1859, 889; and in 1860, 45,891 were despatched here. Besides this, enormous numbers are sent to the Baltic ports (226,519 barrels in 1860, each barrel containing at least 500 herrings); and these come largely into competition with our home-cured fish. There are no restrictions whatever either as to size of mesh, season, or condition, in the Norwegian fisheries, and yet the annual supply of fish does not appear to fall off. It fluctuates, indeed, but this, as we have shewn, is always to be expected from the fish's nature. With a clear stage and no favour, we are patriotic enough to believe that our own fishermen could catch more fish, cure them better, and sell them cheaper than any foreign fishery whatever.

REPORTS OF LONDON JOINT-STOCK BANKS.

THE recent publication of Reports of Joint-stock Banks for the half-year ending 31st December 1862,* affords an opportunity of placing before the general reading public a few facts concerning these establishments, which the late efforts to found new banks may render more than usually interesting. It will serve the end in view to confine attention to the Bank of England and the six leading London joint-stock banks—Bank of London, City, London and County, London Joint-stock, London and Westminster, and Union Bank of London. Contrasting the Bank of England with its six youthful competitors, we find the paid-up capital of the great national establishment £14,553,000, against £3,618,375, resulting from a combination of the amount of the others. The public seem to appreciate a share of the small amount more highly than an interest in the large, as evidenced by the share-lists of 22d May 1863, from which, and the Reports under review, may be deduced the fact, that for every twenty shillings of paid-up capital, reserve fund, and undivided profits, from 31s. 9d. to 57s. 8d., or on the average 45s. 5d., might be obtained, being an average advance of 25s. 5d., or 127 per cent., against 38s. 8d., being an advance of 18s. 8d., or 93 per cent., in the case of the Bank of England's capital and rest. The same figures also reveal the astonishing fact, that the market-value of the shares is *in excess* of the means of the banks by the enormous amount of £22,849,524, or £16,526,515 as regards the Bank of England, and £6,323,009 as regards the other six banks. In other words, if the banks had resolved to wind up, and had realised their assets to the full amount as valued by themselves, they would have fallen short by £22,849,524 of the market-value of their shares! Or, again, these establishments may be looked on as a business for sale, for which an eager purchaser is found, glad not only to take over the stock at the seller's valuation, but to give a further sum of nearly twenty-three million pounds sterling for the good-will. Verily, this exhibits a faith in the commercial greatness of the British empire which it is cheering to contemplate.

Another mode of illustrating the trust placed in these institutions, is to examine the proportion which their assets bear to their liabilities. In ordinary business, the creditor would not look on the debtor as over-safe who could not shew a greater margin than two shillings per pound; yet the average of the six banks only shews 21s. 10½d. for every 20s. of liability, the surplus ranging from 1s. 4d. to 3s. 2d. in

* Supplement to the *Economist*, 23d May 1863.

individual instances. The Bank of England stands large in contrast here, exhibiting a surplus of 14s. 5½d. in the banking department, or 7s. 11½d. in combination with the issue department.

The deposits and other obligations of the six banks range in individual instances from L.3,208,931 to L.13,898,736, and shew a total of L.52,202,936; being large in contrast with L.24,453,156, the amount with the Bank of England. This last sum swells to L.44,324,406, when the issue department is taken into account, and the notes looked on as an obligation.

The combined assets of the six banks amount to L.57,172,301, the lowest individual case shewing L.3,641,857, and the highest L.15,285,796. The assets of the Bank of England amount to L.42,126,191 in the banking department; the amount, when associated with the issue department, being increased to L.61,997,441. The grand total of property intrusted to the keeping of the seven establishments reaching the imposing sum of L.119,169,742.

One of the six banks does not specify apart the amount of cash it holds in hand and at call; but the same has been assumed at the same proportion as that of the lowest of the other five on the list. As regards leases, buildings, fixtures, and furniture also, in the case of the Bank of England, and in that of one of the six banks, no amount appears under those heads. The L.57,172,301 under care of the six banks has been disposed of as follows—in buildings, leases, fixtures, and furniture, L.351,079; in government and other stocks, Exchequer bills, debentures, India bonds, and other investments, L.5,959,805; in cash on hand and at call, L.7,133,537; and in loans and bills discounted, L.43,727,880. The L.42,126,191 under the care of the banking department of the Bank of England is apportioned thus: cash on hand, L.9,735,171; government securities, L.11,244,873; bills discounted, or other securities, L.21,146,147. Combined with the issue department, the figures stand: cash, L.14,956,421; government securities, L.25,894,873; bills discounted, or other securities, L.21,146,147. These figures may be more correctly appreciated by stating that, in the case of the six banks, every pound of assets is on the average disposed of in this way: 1½d. on buildings, furniture, &c.; 2s. 1d. in government stocks, &c.; 2s. 6d. in cash on hand and at call; and 15s. 3½d. in loans and bills discounted. These proportions range in individual cases from ¾d. to 5d. as respects buildings, &c.; 1s. 4½d. to 3s. 3d. government and other securities; 1s. 6½d. to 5s. 1½d. cash on hand and at call; and 12s. 9½d. to 16s. 7½d. as respects loans and bills discounted. The Bank of England banking department reads thus: 4s. 7½d. cash on hand; 5s. 4d. government securities; 10s. 0½d. other securities; the figures in combination with the issue department being 4s. 9½d., 8s. 4½d., and 6s. 9½d. respectively. It is noticeable that the joint-stock banks lend three-fourths of the money under their control to the public; the banking department of the Bank of England, one-half only; and this proportion falls to one-third when banking and issue departments are taken together.

We may all well be proud of such establishments, and feel assured of their solidity under a continuance of proper management. When funds in the hands of bankers are only invested in legitimate banking securities, great safety is attained, for there is little that is so easily convertible as the least convertible of such securities. Fraud or gross mismanagement may sometimes throw doubt on the safety of our means, as murder may on the safety of our lives, but our property and our lives may be usefully and happily enjoyed nevertheless. Banks are the great reservoir of the country, into which the national savings flow, and whence they are emitted, in carefully regulated streams, to irrigate our vast industrial expanse. It is to be hoped that such of the recently projected banks as gain a footing will be inaugurated and conducted on correct principles, so that they may sustain and

enhance our financial reputation, as has been done by the establishments whose position we have been briefly viewing.

THE LOST ONE.

I MOURN, albeit I mourn in vain,
To miss that being from my side
Who bound in love's resistless chain
My selfishness and pride;
She whom I proved in after-days
A faultless friend, a faithful wife,
Who cheered me through the roughest ways
Along the vale of life.

I miss her greeting when I rise
To needful toil at early morn,
And the bright welcome of her eyes
When irksome day is worn;
I sorely miss from ear and sight
Her comely face, her gentle tongue,
Which praised me when I went aright,
And warned when I was wrong.

I lack her love, which filled my heart
With kindred tenderness and joy,
And fondly kept my soul apart
From the harsh world's annoy;
That love which raised me from the dust
Of sordid wish and low desire,
And taught me by its own sweet trust
How nobly to aspire.

My hopes were wilder than I deemed,
When she espoused my humble lot,
For my connubial pleasures seemed
As they would perish not;
But an unerring Providence,
Whose power is ever just and great,
Called my beloved companion hence,
And left me desolate.

The greenness from my path is gone,
Its streams are sunken in the sand,
And wearily I travel on
Across a desert land.
The horizon round me, once so bright
With glorious hues, seems dim and bare,
But the far distance shews one light,
Which keeps me from despair.

I am not wholly desolate,
For she has left her image here,
And I will wrestle with my fate,
For sake of one so dear.
Great God! keep strong and undefiled
The only fledgeling in my nest,
My winsome boy, my only child,
And make his father blest!

May his lost mother's spirit now
Look down from her exalted place,
And shed on his unconscious brow
A portion of her grace!
May Heaven inspire my widowed soul
For highest duties, holiest things,
And when I near the shadowy goal,
Lend me immortal wings!

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